

# **BASELINE WILDLIFE REPORT**

**For**

**International Uranium (USA) Corporation (IUSA)  
Tony M Mine  
Garfield County, UT**

**Prepared For:**

**International Uranium (USA) Corporation (IUSA)**

**Prepared By:**

Tetra Tech, Inc.  
6178 Stratler Street  
Murray, UT 84107

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## 1.0 INTRODUCTION

International Uranium, USA, Corporation (IUSA) is proposing to re-open and expand an inactive uranium mine, the Tony M Mine, in Garfield County, Utah. IUSA and the Utah Division of Oil, Gas and Mining (UDOGM) have established an approach to mine development and associated permitting for the project area, herein referred to as the Phase 1 permit area. Since a portion of proposed facilities associated with the Phase 1 permit area are located on public lands administered by the Bureau of Land Management (BLM) Richfield Field Office and Henry Mountains Field Station, a National Environmental Policy Act (NEPA) checklist will be prepared at the discretion of the BLM. Based on BLM review, an Environmental Assessment may be required. Tetra Tech, Inc. (Tetra Tech) has been contracted to conduct baseline wildlife surveys to support wildlife resource analysis for the UDOGM permit, with data to support the subsequent NEPA documentation. This Baseline wildlife report states the results of on-site surveys and habitat presence for selected wildlife species of concern.

The proposed Phase I permit area is located approximately five miles north of Ticaboo, Utah and approximately two miles east of Highway 276, in Garfield County, Utah (**Figure 1 - Phase 1 Permit Area**). Currently, the area encompasses an inactive and reclaimed underground uranium mine that is situated among sheer cliff faces, and below salt desert shrub/scrub habitat. The elevation of the project site ranges from 4,800 to 5,000 feet. Current activity associated with re-opening of the Tony M Mine includes approximately three acres of surface disturbance associated with re-opening the portals and ventilation holes of the mine, new/improved roads, pipelines, and geotechnical evaluations within the proposed evaporation pond area. Upon completion of the proposed surface facility, sediment control structures, and evaporation pond, total acreage of the disturbance within the proposed Phase 1 permit area would be approximately 48 acres (Figure 1). Approximately 40 acres of the disturbance will be on BLM lands, with approximately eight acres on State lands.

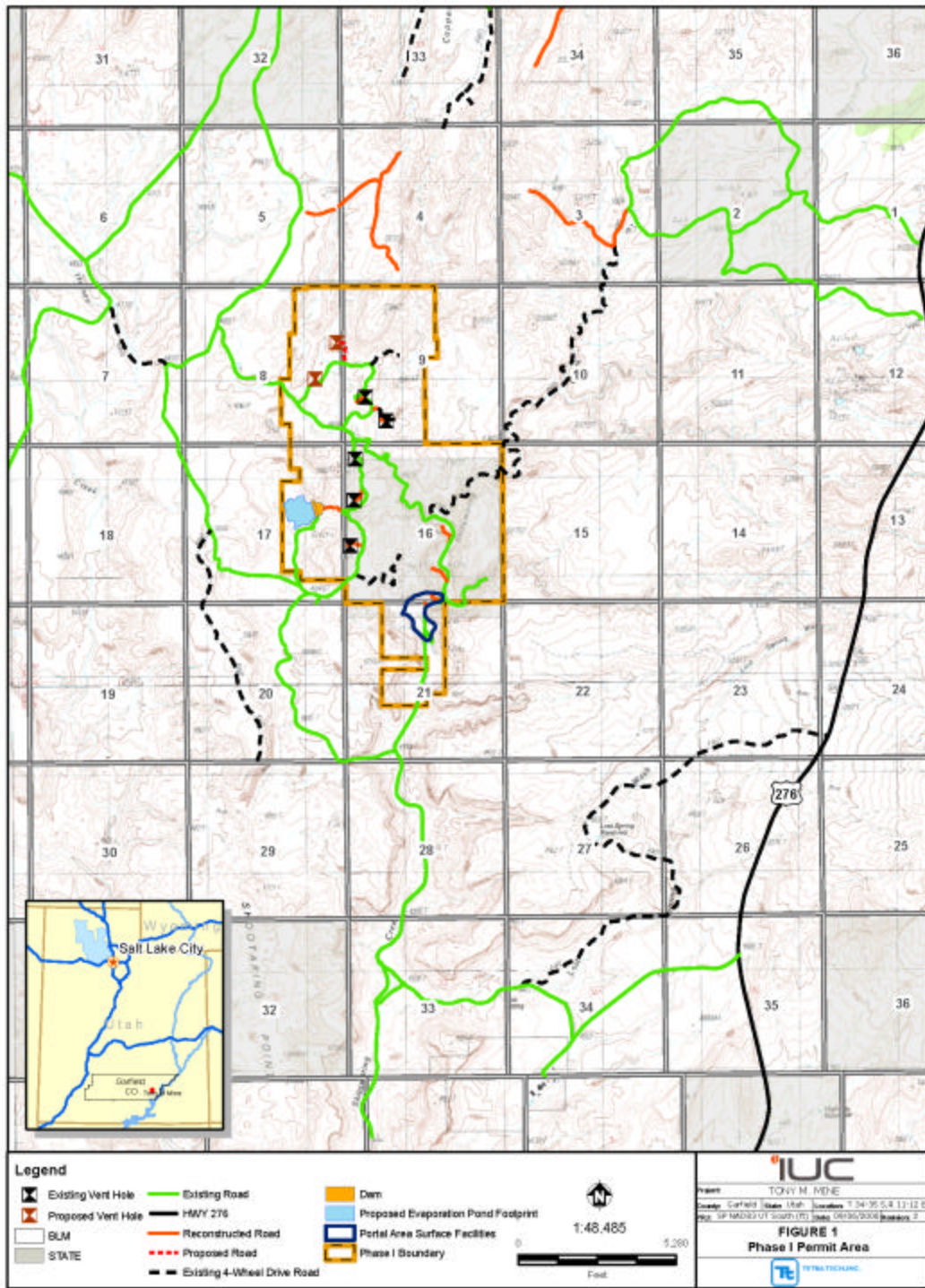
Preliminary discussions of general wildlife needs and potential survey requirements took place on April 5, 2006 between Tetra Tech project managers and BLM Hanksville Field Station personnel. On April 6, 2006, an on-site evaluation of habitat and possible wildlife survey routes was conducted by David Steed of Tetra Tech. Species considered for on-site surveys were established based on species management concerns raised during the April 5, 2006 meeting with BLM, the presence of suitable habitat on-site, and potential for species occurrence within the area. Tetra Tech biologists Susan Hatch and David Steed consulted with Suzanne Grayson of the BLM Hanksville Field Station on April 18, 2006 to determine species for targeted surveys and survey methodology. Based upon review of site conditions, burrowing owl (*Athene cunicularia*) and raptor (including peregrine falcon [*Falco peregrinus*], prairie falcon [*Falco mexicanus*], and golden eagle [*Aquila chrysaetos*]) surveys were identified as required within and near the proposed disturbances within the proposed Phase I permit area. Surveys for the Southwest willow flycatcher (*Empidonax traillii extimus*) and other migratory birds were determined to not be required by BLM due to the lack of suitable riparian habitat within the proposed Phase I permit area. Likewise, due to the lack of suitable habitat or presence of marginal habitat, surveys for Mexican spotted owl (*Strix occidentalis lucida*), pygmy rabbit (*Brachylagus idahoensis*), and greater sage grouse (*Centrocercus urophasianus*) were also determined to not be required by BLM. However, Tetra Tech biologists elected to conduct a one-event calling survey for the Mexican spotted owl during late April, within canyon habitat in and near the proposed disturbances within the proposed Phase I permit area. Surveys for bat species and big game species (elk [*Cervus Canadensis*], mule deer [*Odocoileus hemionus*], desert bighorn sheep [*Ovis canadensis nelsoni*], and Henry Mountain bison herd [*Bison bison*]) were not



required, however, potential effects of the proposed project to these species and their habitat were identified for further analysis during the NEPA process. Tetra Tech biologists recorded observations on the presence of suitable habitat for bat and big game species and any evidence of their use of the area. Information collected on bat presence and habitat availability will be used to further evaluate the need for bat surveys.

This report describes the general proposed Phase I permit area site conditions, survey methods and results for burrowing owl surveys, raptor surveys, Mexican spotted owl one-event survey, and cursory bat and big game habitat availability and use observations. Incidental observations of additional wildlife species are reported.

Figure 1. Project Area Map



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## 2.0 METHODS

### 2.1 Burrowing Owl

Potential suitable burrowing owl habitat was identified by Tetra Tech staff during a previous site visit and occurred within the proposed evaporation pond footprint (see Figure 2). Burrowing owl surveys were conducted on April 26, 2006 and June 6, 2006. No survey protocol for burrowing owls has been established. Survey methodology was based on protocol developed for burrowing owl presence/absence in suitable sagebrush-steppe habitat on BLM lands in Utah and Wyoming. Surveys consisted of walking the entire proposed pond footprint searching for prairie dog burrows, burrowing owls, or burrowing owl sign. Survey date, time, weather, owl presence/sign observations, and photographs were recorded.

### 2.2 Raptors

Raptor surveys were conducted April 26, 2006 and June 6, 2006. Surveys followed the guidelines established by the Utah Division of Wildlife Resources (UDWR) for raptor monitoring and nest identification (unpublished). This guideline is consistent with UDOGM regulatory requirements (R647-4-109.2). Surveys consisted of visual searches for raptors, nests, and sign of raptor presence at observation points located at advantage points along mesa tops and canyon bottoms within and surrounding the proposed disturbances within the proposed Phase I permit area. Key species included in the survey were peregrine falcon (*Falco peregrinus*), prairie falcon (*Falco mexicanus*), and golden eagle (*Aquila chrysaetos*). Observation points to assess cliff habitat were established during a site visit on April 6, 2006 by David Steed. Observation points were located along the county road at approximately every three-tenths of a mile (closer or farther apart depending on search distance capability), as well as along cliff face as access allowed. At each observation point, binoculars and spotting scope were used to search the surrounding cliff faces (i.e., potential raptor nesting habitat) for nests and sign of roosting activity, and the skyline was searched for raptors in flight. Survey date, time, weather, raptor nests and/or presence/sign observations, and photographs were recorded.

### 2.3 Mexican Spotted Owl

A one visit Mexican spotted owl call survey was conducted during the evening of April 26, 2006. Survey methods were based on the four visit U.S. Fish and Wildlife Service Mexican spotted owl survey protocol (USFWS 1995). Seven calling stations were located in suitable habitat within and near the Phase I permit area, along the county road in the canyon bottom (**Figure 2**). Calling point locations maximized coverage of the available canyon habitat (e.g., near wider, open areas, or near canyon draws). At each calling station, biologist broadcast Mexican spotted owl playback calls according to survey protocol, followed by five to ten minutes of listening for owl response calls. Survey date, time, weather, and owl response/sign observations were recorded.

### 2.4 Bats

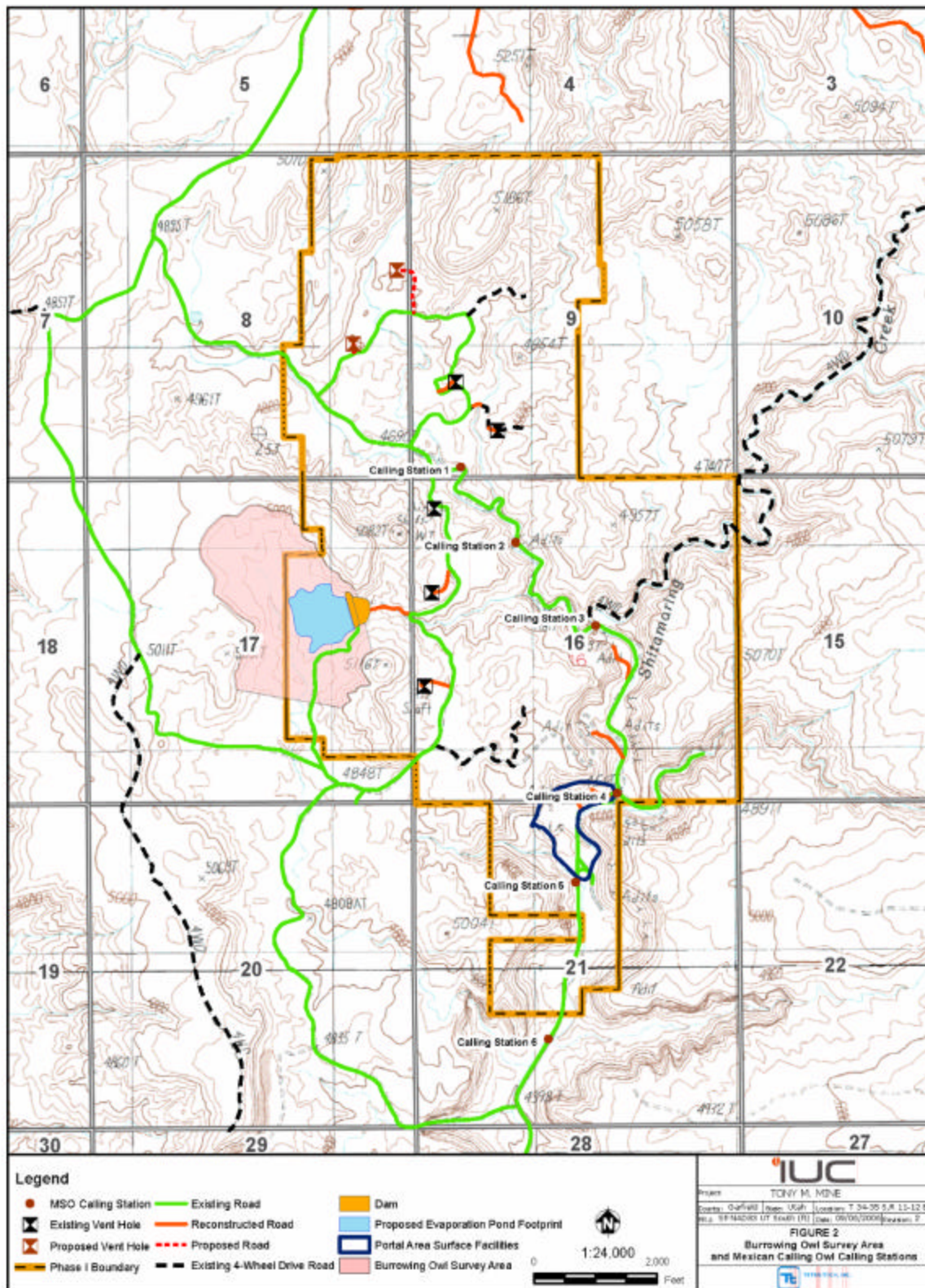
Informal, general surveys documenting the presence of suitable bat habitat and bat presence in the area were conducted during both site visits on April 25 and 26, 2006 and June 6, 2006. No netting or species identification using acoustic monitoring (i.e., Anabat 11) was conducted. Tetra Tech biologists counted the number of bats observed foraging in the evening on three nights: April 25 and 26, 2006 and June 6, 2006. Foraging bats were counted while driving the canyon bottom county road, including approximately seven locations where the biologists stopped and exited the vehicle and watched for bats for approximately five minutes. Bat habitat features (e.g., cliff crevices, caves, available water) and observations of bat guano were noted.

## 2.5 Big Game Species

Presence and availability of big game forage (shrub browse species, perennial herbaceous and grass species) was identified and recorded. Sign of big game presence and/or use (e.g., tracks, scat, or grazed vegetation) of the area were noted.



**Figure 2. Burrowing Owl Survey Area and Mexican Spotted Owl Calling Stations**





### 3.0 RESULTS

Site reconnaissance, raptor surveys, burrowing owl surveys, one Mexican spotted owl survey, limited bat habitat and foraging bat count observations, and big game habitat and use observations were conducted by Tetra Tech biologists Susan Hatch (BS, Fisheries and Wildlife Management, nine years experience) and Colleen Trese (M.S., Fisheries and Wildlife, 10 years experience) on April 25 and 26, 2006, under the direction of Project Manager David Steed (B.S., Ecology, 15 years experience). A return visit on June 6, 2006 was performed by Colleen Trese to complete the second raptor survey, follow-up burrowing owl survey, and evening foraging bat count. The results of these site visits are presented below.

#### 3.1 Site Conditions

The proposed Phase I permit area and surrounding area includes a deep canyon and associated ephemeral Shitamaring Creek (**Appendix A; Photo 1**), an upland mesa to the west of the canyon (**Appendix A; Photo 2 and 3**), and an existing evaporation pond area (impoundment currently breached and dry) (**Appendix A; Photo 4**). Much of the proposed Phase I permit area is located on reclaimed land that was disturbed during earlier uranium mining. Shitamaring Creek has no riparian component but receives enough annual fluvial energy to prevent establishment of perennial vegetation, with the exception of tamarisk (*Tamarisk parviflora*) which occurs throughout. The canyon bottom consists mostly of grey rabbitbrush (*Chrysothamnus nauseosus*) and snakeweed (*Gutierrezia sarothrae*), with residual components of shadscale (*Atriplex confertifolia*) and four-wing saltbush (*Atriplex canescens*). Grass and forb cover is minimal. Perennial bunchgrass cover is very low and grasses that do occur within the canyon include needle and thread (*Heterostipa comata*) and a species of rice grass (*Oryzopsis* sp.). Annual, invasive species are prevalent. Several woody species occur on the cliff walls and include Utah juniper (*Juniperus osteosperma*), single-leaf ash (*Fraxinus anomala*), cliffrose (*Purshia mexicana*), Apache plume (*Fallugia paradoxa*), and fragrant sumac (*Rhus aromatica*).

In the uplands area, there is sandstone rock scrubland communities dominated by Wyoming sagebrush (*Artemisia tridentata wyomingensis*) and roundleaf buffaloberry (*Shepherdia rotundifolia*), with shadscale and four-wing saltbush components. There is minimum grass and forb cover.

The current pond impoundment area is dominated almost exclusively by tamarisk and the soils are saline and heavy clay. Immediately surrounding the impoundment, which includes the footprint for the proposed evaporation pond, are ridge and slopes with rocky shallow soils. This area is dominated by desert trumpet (*Eriogonum inflatum*). Minor drainage bottoms in the area are very sandy and support Harriman yucca (*Yucca harrimaniae*), gray rabbitbrush, rice grass sp., and green ephedra (*Ephedra viridis*).

#### 3.2 Burrowing Owl

Burrowing owl habitat occurs in open, level areas with low vegetation cover such as open grasslands and prairies. Burrowing owls use holes from other burrowing mammals, preferentially prairie dog holes, although they may dig their own burrows if the soil is very loose. Potential burrowing owl habitat was identified within the surrounding area of the proposed evaporation pond. The potential habitat within the footprint of the proposed evaporation pond is open and level with minimal vegetation cover. However, the area has rocky shallow soils, not conducive for burrowing owls to digging their own burrows, and the area lacks borrows from any species.

Burrowing owl surveys were conducted on April 26 and June 6, 2006. No burrows, burrowing owls, or burrowing owl sign were detected during either the April or June survey.

### 3.3 Raptors

Potential raptor nesting habitat within the deep canyon is present and abundant on the cliff faces. Raptor surveys were conducted during 6:45 am - 12:00 noon on April 26, 2006 and between 7:30–10:00 am on June 6, 2006. Temperatures ranged from around 70° F at 7:00 am on both survey mornings to approximately 90° F at 12:00 noon on April 26, and 90° F at 10:00 am on June 6. Wind conditions were calm during the morning of April 26 and slight (approximately five miles per hour or less) on June 6.

No active nests were identified within one half mile of the proposed Phase 1 area. A red-tailed hawk was seen soaring near Highway 276, approximately two miles east of the Phase I permit area, during both April and June visits.

Three inactive nests were located within the project site (**Figure 3 - Raptor Nest Locations**). Old and Dilapidated Nest 1 (OD 1) (**Appendix A; Photo 5**) is an inactive nest located on an east-facing cliff just around the northern corner of the mine portals. Directly beneath OD 1, there is a small cavity type nest (possible American kestrel [*Falco sparverius*] nest) with whitewash. Unknown Nest 1 (UNK 1) (**Appendix A; Photo 6**) is located on the same cliff as OD 1, approximately 100 feet to the north, and is surrounded by whitewash. One red-tailed hawk (*Buteo jamaicensis*) was seen circling above this cliff face, which then perched above and to the north of these nests. UNK 1 lacked individuals on the nest or signs of nest tending (i.e. fresh green nest material, fresh whitewash) during both April and June visits, and is considered an inactive nest.

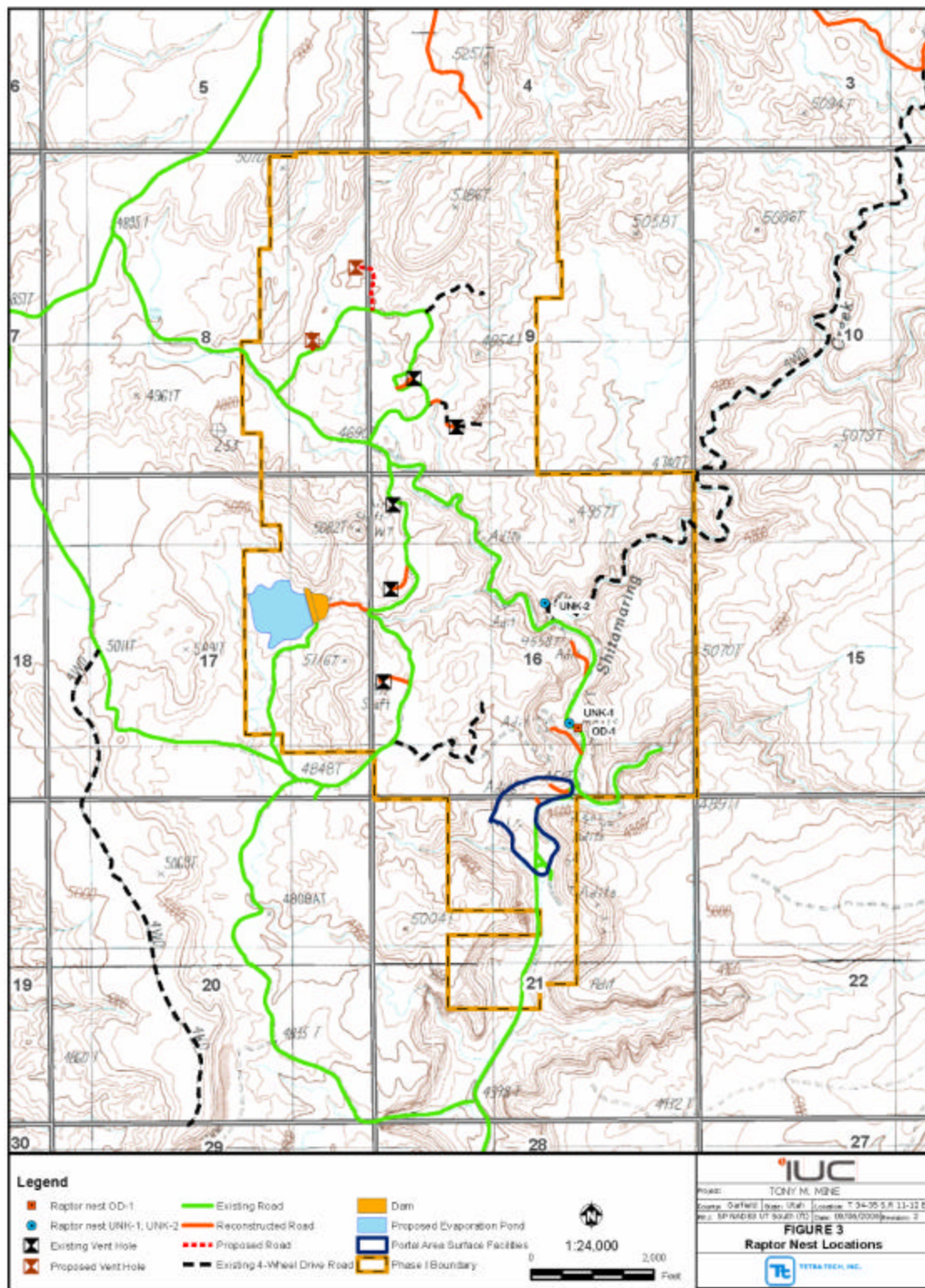
Unknown Nest 2 (UNK 2) (**Appendix A; Photo 7**) is located approximately one half mile north of the mine portals, off the roadway and in a wash that runs to the north. The nest is on an east-facing slope and is bordered by whitewash. UNK 2 is also considered an inactive nest due to the lack of individuals on the nest or sign of recent nest tending during both April and June visits. There were many violet-green swallows (*Tachycineta thalassina*) and white-throated swifts (*Aeronautes saxatalis*) active along the cliff containing the nest.

Common raptor prey species such as rabbits, hares, and mice are present in the area but were observed in very low numbers. For both of the field visits (in April and June), biologists observed only five desert cottontail rabbits (*Sylvilagus audubonii*), three black-tailed jackrabbits (*Lepus californicus*), and several mice during dusk hours.

### 3.4 Mexican Spotted Owl

In Utah, where mixed-conifer forest is sparse, Mexican spotted owls occur primarily in steep rocky canyons where the owls nest in caves or on cliff ledges. In these canyon habitats, owl diets consist heavily of small nocturnal mammals, such as woodrats (*Neotoma* sp.), mice, voles, and bats. Potential Mexican spotted owl nesting habitat within the deep canyon within the Phase 1 permit area is present, as caves and cliff ledges do occur. Common prey species are available within the area as woodrat nests and sign were prevalent on the site, and mice and bat species were observed during twilight hours.

Figure 3. Raptor Nests Locations



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Though not required by BLM, a one-night Mexican spotted owl call survey was conducted on the evening of April 26, 2006, between approximately 7:40–10:00 pm. The temperature was approximately 73° F, with clear skies and no wind. Seven calling stations were designated along the canyon bottom county road (Figure 2). No owls were heard from calling stations 1-3 and 5-7. At station 4, a one, three note unidentified owl response was heard. Though the owl species was not identified, the response did not resemble a Mexican spotted owl call. No other owl responses were heard during the evening call survey.

### **3.5 Bats**

Abundant bat habitat is present within the canyon bottoms and cliff faces in and around the proposed Phase I permit area. Several large mine portal openings likely provide cave habitat for bat species. Rock crevices in the cliff faces were common and guano accumulation in several crevices was noted. A small pond, (holding water during the April 25 and 26, 2006 visit), a potential water source for bats, was located approximately one half mile south of the Phase 1 permit area.

Foraging bat counts were conducted between 5:45–8:00 pm on April 25, 2006, 7:40–10:00 pm on April 26, and between 9:00–10:30 pm on June 6, 2006. On the evenings of April 25 and 26, temperatures were around 73° F, with clear skies and no wind. On the evening of June 6, at 9:00 pm, the temperature was approximately 75° F, 90 percent cloud cover, and wind of approximately five to 10 miles per hour. At 10:00 pm, the temperature had dropped to approximately 70° F, wind speed increased dramatically to approximately 40 miles per hour, and lightning bolts occurred.

Thirty-three bats (unidentified species due to low light conditions) were observed on April 25, and 21 bats on April 26, 2006. Only five bats were observed on June 6, 2006. This low number may be attributed to the stormy weather and high winds of the evening. All bats observed were of similar size and the general size of most *Myotis* species. Field observations of the proposed surface facility area did not identify any limiting factors potentially impacting bat use by anticipated construction and proposed operations.

### **3.6 Big Game Species**

No observations, signs of big game presence or use (tracks, scat, or grazed vegetation) were observed during the April or June surveys. Big game species elk, mule deer, desert bighorn sheep and bison occur within Garfield County, Utah. Elk occur in the mountainous region in the western portion of the county and migrate to lower elevation foothills and valleys during the winter. Mule deer are common throughout Utah in a diversity of habitat types. The desert bighorn sheep occur in the eastern section of the county in open, rocky desert mountains. Free ranging bison occur in the Henry Mountains in eastern Garfield County. Although each of these species may have potential to occur within the proposed Phase I permit area, big game forage habitat in the area is poor. Grass and forb cover is very low and bare and rocky ground dominates. Several shrub species present, such as sagebrush, rabbitbrush, snakeweed, shadscale and four-winged saltbrush, may provide fair winter range forage, but shrub cover is very low and likely not sufficient to support extended winter browsing. Intensive livestock use (cattle grazing) occurs throughout the site. The proposed Phase I permit area is a desert environment where surface water is present only temporarily during short periods in the spring and/or during flash storms.

### 3.7 Incidental Species

Incidental avian and terrestrial species observed within the proposed Phase I permit area included:

- Woodrat nests, scat, and carcass
- Desert cottontail rabbit
- Black-tailed jackrabbit
- Several unidentified mouse species
- Common side-blotched lizard (*Uta stansburiana*)
- Desert spiny lizard (*Sceloporus magister*)
- Several small unidentified lizard species
- Horned lark (*Eremophila alpestris*)
- Western kingbird (*Tyrannus verticalis*)
- Rock wren (*Salpinctes obsoletus*) and 3 young
- Brewer's blackbird (*Euphagus cyanocephalus*)
- Common raven (*Corvus corax*)
- Black-throated sparrow (*Amphispiza bilineata*)
- Chukar (*Alectoris chukar*) calls
- Cliff swallow (*Petrochelidon pyrrhonota*)
- Violet-green swallow
- White-throated swift



## 4.0 CONCLUSIONS

Baseline wildlife resource surveys were conducted at the Tony M Mine, in Garfield County, Utah. These surveys were conducted to facilitate the wildlife resource analysis requirements associated with the UDOGM mine permit and to support the resource considerations of the concurrent BLM NEPA evaluation for mine development in the Phase I permit area. A site evaluation was conducted on April 6, 2006, with species surveys conducted during April 25 and 26, 2006, and June 6, 2006. Focused surveys for burrowing owl and raptor species were conducted, an abbreviated version of the Mexican spotted owl survey was conducted, and cursory observations for bat species and big game habitat availability and use were also recorded.

No burrowing owl presence or sign were observed within the potential burrowing owl habitat found in and surrounding the proposed evaporation pond. Burrowing owl habitat is poor as the soils are shallow and rocky and no previous mammal burrows are present.

Only one raptor species, a red-tailed hawk, was observed within the survey area of the proposed Phase I permit area. No active raptor nests were observed within 0.5 miles of the proposed surface disturbance areas, although three old/inactive raptor nests were identified. Common raptor prey, such as rabbits, squirrels appears to be low in abundance, though other small mammals (e.g., woodrats, mice) appear to be abundant in the area. No Mexican spotted owls or sign were observed during the night survey conducted within the canyon habitat.

Numerous, unidentified bat species were observed on the evenings of April 25 and 26, 2006 and June 6, 2006, respectively. Bat guano accumulation in rock crevices was noted. Present mine portals may provide roosting cave habitat for bats.

No signs of big game presence or use (tracks, scat, or grazed vegetation) were observed during the April or June site visits. Big game forage habitat in the area is poor as grass, forb, and shrub cover is very low and bare ground dominates the area. Available water in the area is scarce. One small pond, holding water during the April 25 and 26, 2006 field visit, was located approximately 0.5 miles outside the Phase I permit area. Flowing surface water is ephemeral and restricted to short periods in the spring and/or flash floods.

## **5.0 REFERENCES**

U. S. Fish and Wildlife Service. 1995. Recovery plan for the Mexican spotted owl: Volume I. Albuquerque, New Mexico. 172 pp.

## **Appendix A**

### Photographs



Photo 1. Deep canyon walls along an un-named tributary to Shitamaring Creek.



Photo 2. Upland mesa.





Photo 3. Upland mesa area above canyon to an un-named tributary to Shitamaring Creek.



Photo 4. Mine evaporation pond area.





Photo 5. OD 1 and possible American Kestrel nest cavity and whitewash below.



Photo 6. UNK 1.



Photo 7. UNK 2.